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10/737,036	12/16/2003	Christopher David Hekimian		9682

7590 04/17/2007
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EXAMINER

CUNNINGHAM, GREGORY F

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/737,036	HEKIMIAN, CHRISTOPHER DAVID	
	Examiner	Art Unit	
	Greg F. Cunningham	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications of application received 12/16/2003.
2. The disposition of the claims is as follows: claims 1 - 16 are pending in the application.
Claims 1, 2, 7, 12 and 16 are independent claims.
3. The group and/or Art Unit location of your application has changed. To aid in the correlation of any papers for this application, all further correspondence should be directed to Group Art Unit 2624 (effective 03/07). Please be sure to use the most current art unit number on all correspondence to help us route your case and respond to you in a timely fashion.
4. When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Drawings

5. The drawings are objected to because Figures 7 through 10 need flow control arrows indicating direction of program process flow. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where

Art Unit: 2624

necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

6. Claims 14 and 15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, and/or, cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The term "algorithm" corresponds to software and the claim as a whole does not present clear, concrete and tangible results. See: "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The phrase "Claim includes any circuit or algorithm or combination thereof, which emulates the techniques described herein" is vague and misleading as to what the invention constitutes with regard to circuitry or an algorithm or combination thereof.

B. The phrase "regardless of the iris imaging technology, timing method, eye position detection and correlation method, iris recognition method, communication method, and candidate-control correlation methods employed" is vague and misleading in that it says what the invention is not rather than what is the invention.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4, 7-9 and 11-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Bolle et al. (US 2004/0042642 A1), hereinafter Bolle.

Art Unit: 2624

A. Bolle anticipates claim 1, "A system for iris recognition having a plurality of functions comprising:

at least one iris recognition imaging device [para. 0008 at 'That is, a fingerprint or a palm-print reader, a signature digitizer or a camera for acquiring face or iris images is attached to the user's home computer'; para. 0046 at 'As an example of another biometrics, the circular texture of a subject's iris, 140 in FIG. 1, is believed to be even less variable over a subject's life span.']; para 0055 at 'or keeping the eyes open, as in case of iris recognition'];

a processing station, whereby a sequence of iris imaging processes can be initiated and controlled [para 0055 at 'FIG. 4 is a generic block diagram for combining a biometrics with user action, i.e., combining biometrics at the subject level. The user action, just like the movement of a pen to produce a signature, is the second behavioral biometrics. The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action $a(t)$ is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints, it is the three-dimensional finger with the print on it). It is specified what the constraints of the action 430 are but within these constraints, the user 410 can define the action. (For example, constraints for putting a signature are that the user can move the pen over the paper in the x- and y-direction but cannot move the pen in the z-direction.) That is, the action 430 in some sense transforms the

Art Unit: 2624

biometric of the user over time. It is this transformed biometric 450 that is input to the biometric signal recording device 460. The output 470 of this device is a sequence of individually transformed biometrics signals $B(t)$ 480 from time 0 (434) to some time T (436).'];

a data storage buffer [para. 0003 at 'The acquired biometric signal is processed and matched against a stored template.'; para. 0043 at 'From this sample biometrics, a template is derived that is stored and used for matching purposes at the time the user wishes to access the account or service.'; para. 0050 at 'A typical, legacy automatic biometrics signal identification system takes only a biometric signal 210 as input (FIG. 2A). Again, the system consists of three other stages 215, 220 and 225, comprising: signal processing 215 for feature extraction, template extraction 220 from the features and template matching 225. However, in the case of an identification system 250, only a biometric signal 210 is input to the system. During the template matching stage 225, the extracted template is matched to all template, identifier pairs stored in database 230.'];

a communication port, whereby digitized sequences made up of scanned and stored iris images or image derived data can be conveyed to an authentication server [para. 0008 at 'One of the main advantages of Internet-based business solutions is that they are accessible from remote, unattended locations including users' homes. Hence, the biometrics signal has to be acquired from a remote user in a unsupervised manner. That is, a fingerprint or a palm-print reader, a signature digitizer or a camera for acquiring face or iris images is attached to the user's home computer.'; para. 0050 at 'Again, the biometric signal 210 can be acquired either local to the application on the client or remotely with the matching application running on some server.']*]
[as detailed].

Art Unit: 2624

B. Bolle anticipates claim 2, "A device which is capable of acquiring a plurality of iris images [supra for claim 1 wherein iris recognition is part of biometrics in the plural; and in para. 0046 at 'As an example of another biometrics, the circular texture of a subject's iris, 140 in FIG. 1, is believed to be even less variable over a subject's life span.']; and conveying said images or data derived from said images across a communication medium [para. 0008 at 'One of the main advantages of Internet-based business solutions is that they are accessible from remote, unattended locations including users' homes. Hence, the biometrics signal has to be acquired from a remote user in a unsupervised manner. That is, a fingerprint or a palm-print reader, a signature digitizer or a camera for acquiring face or iris images is attached to the user's home computer.']; para. 0050 at 'Again, the biometric signal 210 can be acquired either local to the application on the client or remotely with the matching application running on some server.']" [as detailed].

C. Bolle anticipates claim 3, "The device according to claim 2 which can include timing data corresponding to the actions of the party seeking authentication during the successive iris imaging processes with said iris image or image derived data [para 0055 at 'FIG. 4 is a generic block diagram for combining a biometrics with user action, i.e., combining biometrics at the subject level. The user action, just like the movement of a pen to produce a signature, is the second behavioral biometrics. The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, a(t) with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436).

Art Unit: 2624

Hence, the action $a(t)$ is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints, it is the three-dimensional finger with the print on it). It is specified what the constraints of the action 430 are but within these constraints, the user 410 can define the action. (For example, constraints for putting a signature are that the user can move the pen over the paper in the x- and y-direction but cannot move the pen in the z-direction.) That is, the action 430 in some sense transforms the biometric of the user over time. It is this transformed biometric 450 that is input to the biometric signal recording device 460. The output 470 of this device is a sequence of individually transformed biometrics signals $B(t)$ 480 from time 0 (434) to some time T (436). In the case of fingerprints, these are fingerprint images, in the case of face, these are face images. This output sequence 470, is the input 485 to some extraction algorithm 490. The extraction algorithm computes from the sequence of transformed biometrics the pair $(a'(t), B)$, 495, which is itself a biometric. The function $a'(t)$ is some behavioral way of transforming biometric B over a time interval $[0, T]$ and is related to the function $a(t)$ which is chosen by the user (very much like a user would select a signature).']”
supra for claim 2 and [as detailed].

D. Bolle anticipates claim 4, “The device according to claim 2 by which a plurality of eye states defined by eye position and/or state of eyelid closure [para. 0055 at ‘rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics.’, wherein eyes open and not holding biometrics (eyes) still correspond to “a plurality of eye states”] can be identified automatically [para. 0050 at ‘System 200 in FIG. 2A is an authentication system,

Art Unit: 2624

system 250 in FIG. 2B is an identification system. A typical, legacy automatic biometrics signal identification system takes only a biometric signal 210 as input (FIG. 2A). Again, the system consists of three other stages 215, 220 and 225, comprising: signal processing 215 for feature extraction, template extraction 220 from the features and template matching 225. However, in the case of an identification system 250, only a biometric signal 210 is input to the system. During the template matching stage 225, the extracted template is matched to all template, identifier pairs stored in database 230. If there exists a match between the extracted template 220 and a template associated with an identity in database 230, this identity is the output 255 of the identification system 250. If no match can be found in database 230, the output identity 255 could be set to NIL. Again, the biometric signal 210 can be acquired either local to the application on the client or remotely with the matching application running on some server. Hence architecture 250 applies to networked or non-networked applications.'].]

E. Bolle anticipates claim 7, "A device by which iris recognition authentication [para. 0046 at 'As an example of another biometrics, the circular texture of a subject's iris, 140 in FIG. 1, is believed to be even less variable over a subject's life span.']] can be performed based upon adequate matching of a set of one or more iris recognition images or data with a known valid set [para. 0047 at 'Referring now to FIG. 2A. A typical, legacy automatic fingerprint authentication system has a fingerprint image (biometrics signal) as input 210 to the biometrics matching system. This system consists of three other stages 215, 220 and 225, comprising: signal processing 215 for feature extraction, template extraction 220 from the features and template matching 225. Along with the biometrics signal 210, an identifier 212 of the subject is an input to the matching system. During the template matching stage 225, the template associated with

Art Unit: 2624

this particular identifier is retrieved from some database of templates 230 indexed by identities.

If there is a Match/No Match between the extracted template 220 and the retrieved template from database 230, a 'Yes/No' 240 answer is the output of the matching system. Matching is typically based on a similarity measure, if the measure is significantly large, the answer is 'Yes,'

otherwise the answer is 'No.' and para. 0050 at 'System 200 in FIG. 2A is an authentication system, system 250 in FIG. 2B is an identification system. A typical, legacy automatic biometrics signal identification system takes only a biometric signal 210 as input (FIG. 2A).

Again, the system consists of three other stages 215, 220 and 225, comprising: signal processing 215 for feature extraction, template extraction 220 from the features and template matching 225.

However, in the case of an identification system 250, only a biometric signal 210 is input to the system. During the template matching stage 225, the extracted template is matched to all template, identifier pairs stored in database 230. If there exists a match between the extracted template 220 and a template associated with an identity in database 230, this identity is the output 255 of the identification system 250. If no match can be found in database 230, the output identity 255 could be set to NIL.'"] [as detailed].

F. Per dependent claims 8 and 9, these are directed to a device for the device of dependent claims 4 and 3, respectively, and therefore are rejected to dependent claims 4 and 3.

G. Per independent claim 11, this is directed to a process in part for the device of dependent claim 2 and therefore is rejected to dependent claim 2.

H. Bolle anticipates claim 12, "A process according to claim 11 which relies on the correct ordering of said iris images or image derived data and images or image derived data describing eye position and/or state of eyelid closure [para. 0055 at 'However, rather than holding the

Art Unit: 2624

biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics.'] for authentication purposes [para. at '[0055] FIG. 4 is a generic block diagram for combining a biometrics with user action, i.e., combining biometrics at the subject level. The user action, just like the movement of a pen to produce a signature, is the second behavioral biometrics. The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action $a(t)$ is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints, it is the three-dimensional finger with the print on it). It is specified what the constraints of the action 430 are but within these constraints, the user 410 can define the action. (For example, constraints for putting a signature are that the user can move the pen over the paper in the x- and y-direction but cannot move the pen in the z-direction.) That is, the action 430 in some sense transforms the biometric of the user over time. It is this transformed biometric 450 that is input to the biometric signal recording device 460. The output 470 of this device is a sequence of individually transformed biometrics signals $B(t)$ 480 from time 0 (434) to some time T (436). In the case of fingerprints, these are fingerprint images, in the case of face, these are face images. This output sequence 470, is the input 485 to some extraction algorithm 490. The extraction algorithm computes from the sequence of transformed biometrics the pair

Art Unit: 2624

(a'(t), B), 495, which is itself a biometric. The function a'(t) is some behavioral way of transforming biometric B over a time interval [0, T] and is related to the function a(t) which is chosen by the user (very much like a user would select a signature). The biometrics B can be computed from the pair (a'(t), B), that is, where a(t) 430 is zero, where there is no action of the user, the output 470 is undistorted copy of biometrics 420.']" supra for claim 11 and [as detailed].

J. Bolle anticipates claim 13, "A process according to claim 11 which relies on the correct choice of iris imaging devices for authentication purposes [wherein 'output sequence 470' corresponds to "correct choice" with regard to 'rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, a(t) with the biometrics' supra]" supra for claim 11 and [as detailed].

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 5, 6, 10 and 16 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bolle.

A. Bolle anticipates and/or discloses claim 5, "The device according to claim 2 which can include iris imaging device selection data [para 0055 at 'FIG. 4 is a generic block diagram for

Art Unit: 2624

combining a biometrics with user action, i.e., combining biometrics at the subject level. The user action, just like the movement of a pen to produce a signature, is the second behavioral biometrics. The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action $a(t)$ is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints, it is the three-dimensional finger with the print on it).', wherein 'rather than holding the biometrics still, as in the case of iris recognition, the user performs some specific action' corresponds to "iris imaging device selection data"] corresponding to the iris imaging device choices of the party [para. 0055 at 'It is specified what the constraints of the action 430 are but within these constraints, the user 410 can define the action. (For example, constraints for putting a signature are that the user can move the pen over the paper in the x- and y-direction but cannot move the pen in the z-direction.)' wherein 'user 410 can define the action' corresponds to "choices of the party"] seeking authentication during the successive iris imaging processes [That is, the action 430 in some sense transforms the biometric of the user over time. It is this transformed biometric 450 that is input to the biometric signal recording device 460. The output 470 of this device is a sequence of individually transformed biometrics signals $B(t)$ 480 from time 0 (434) to some time T (436).'] with said iris images or image derived data" supra for claim 2 and [as detailed].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply iris recognition, specific user action and user can define the action as disclosed by Bolle.

B. Bolle anticipates and/or discloses claim 6, “The device according to claim 2 which can include data corresponding to eye position [para 0055 at ‘FIG. 4 is a generic block diagram for combining a biometrics with user action, i.e., combining biometrics at the subject level. The user action, just like the movement of a pen to produce a signature, is the second behavioral biometrics. The user 410 offers a traditional biometric 420 for authentication or identification purposes. Such a biometrics could be a fingerprint, iris or face. However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics. This action is performed over time 432, from time 0 (434) to some time T (436). Hence, the action $a(t)$ is some one-dimensional function of time 430 and acts upon the traditional biometric 420. Note that this biometric is the actual biometric of user 410 and not a biometrics signal (i.e., in the case of fingerprints, it is the three-dimensional finger with the print on it).’, wherein ‘rather than holding the biometrics still, as in the case of iris recognition, the user performs some specific action’ corresponds to “eye position”] and state of eyelid closure [para. 0055 at ‘However, rather than holding the biometrics still, as in the case of fingerprints or faces, or keeping the eyes open, as in case of iris recognition, the user performs some specific action 430, $a(t)$ with the biometrics’ corresponds to “eyelid closure”] of the party seeking authentication [para. 0055 at ‘The user 410’] during successive iris imaging processes with said iris images or image derived data” supra for claim 2 and [as detailed].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply iris recognition, specific user action and user can define the action as disclosed by Bolle.

C. Per dependent claim 10, this is directed to a device for the device of dependent claim 5 and therefore is rejected to dependent claim 5.

D. Per independent claim 16, this is directed to a circuit or algorithm for the device or process, respectively, of claims 2-10 or 11-13, respectively, and therefore is rejected to claims 2-10 or 11-13.

Examiner Recommendations

15. Recommend the following with regard to claim language:

A. In general use present tense grammar to indicate without doubt positive assertion, for example:

- a. In claim 2, change “is capable of acquiring” ... and “conveying” to “acquires” ... and “conveys”.
- b. In claims 3, 5 and 6, change “which can” to “that includes”.
- c. In claims 4 and 7-10, change “can be” to “is”.
- d. In claim 11, change “allows for” to “performs”.
- e. In claims 12-15, change “which relies on” to “which further causes”, or change to “which further provides”.

B. The claim objections and rejections given supra, under claim objections, 101, 112, 102 and/or 103 still need to be addressed.

Responses

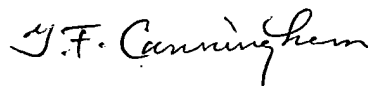
16. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Inquiries

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on (571) 272-7778. The Central FAX Number for the organization where this application or proceeding is assigned is **571-273-8300**.

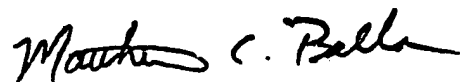
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory F. Cunningham
Examiner, Art Unit 2624

gfc

04/02/2007



MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600